

Q.1.

```
dosseg
.model small
.stack 100h
.data

    var1 db 5
    var2 db 4

.code

main proc

    mov ax, @data
    mov ds, ax
        mov al, var1
    mov bl, var2

    add al, bl

    mov cl, al

    add cl, 48
        mov dl, cl
    mov ah, 2
        int 21h

    mov ah, 4ch
    int 21h

main endp
end main
```

```
D:\>D:\test
9
D:\>
```

Q.2.

```
dosseg
.model small
.stack 100h
.data

    var1 db 5
    var2 db 4

.code

main proc

    mov ax, @data
    mov ds, ax
        mov al, var1
    mov bl, var2

    sub al, bl

    mov cl, al

    add cl, 48
        mov dl, cl
    mov ah, 2
        int 21h

    mov ah, 4ch
    int 21h

main endp
end main
```

```
D:\>D:\test
1
D:\>
```

Q.3.

```
dosseg
.model small
.stack 100h
.data

    var1 db 5
    var2 db 4

.code

main proc

    mov ax, @data
    mov ds, ax
    mov al, var1
    mov bl, var2

    mul bl
    AAM

    mov ch, ah
    mov cl, al

    mov dl, ch
    add dl, 48
    mov ah, 2
    int 21h

    mov dl, cl
    add dl, 48
    mov ah, 2
    int 21h

    mov ah, 4ch
    int 21h

main endp
end main
```

```
D:\>D:\test
20
D:\>_
```

Q.4.

```
dosseg
.model small
.stack 100h
.data

var1 db 6
var2 db 2
q db ?
r db ?

.code

main proc

    mov ax, @data
    mov ds, ax
    mov al, var1
    mov bl, var2
    mov ah, 0
    div bl
    mov q, al
    mov r, ah

    add q, 48
    add r, 48

    mov dl, q      ; quotient
    mov ah, 2
    int 21h

    mov dl, 10
    mov ah, 02h
    int 21h
    mov dl, 13
    mov ah, 02h
    int 21h

    mov dl, r      ; remainder
    mov ah, 2
```

```

    int 21h

    mov ah, 4Ch
    int 21h

main endp
end main

```

```

D:\>D:\test
3
0
D:\>_

```

Q.5.

```

dosseg
.model small
.stack 100h
.data

string db "Arham",'$'

.code

main proc

    mov ax, @data
    mov ds, ax

    mov dx,offset string
    mov ah,9
    int 21h

    mov dl, lengthof string
    add dl,48
    mov ah,2
    int 21h

    mov dl, type string
    add dl,48
    mov ah,2
    int 21h

```

```
    mov ah,4ch  
    int 21h
```

```
main endp  
end main
```

```
C:\>hellow.exe  
Arham61  
C:\>
```